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EXAMINER
STEVENSON, ANDRE C

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Please find below and/or attached an Office communication concerning this application or proceeding.

P-S

Office Action Summary	Application No. 09/730,690	Applicant(s) NGUYEN, TUE	
	Examiner Andre' C. Stevenson	Art Unit 2812	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) 25-32 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 and 20-24 is/are rejected.

7)☒ Claim(s) 13-19 is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of the CERTIFIED copies of the priority documents have been:

1.☐ received.

2.☐ received in Application No. (Series Code / Serial Number) _____ .

3.☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15)☒ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
18)☐ Interview Summary (PTO-413) Paper No(s). _____
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other:

Detail Action

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1 through 24 drawn to a method of delivery, classified in class 438, subclass 16.

II. Claims 25 through 30 are drawn to a method for heating, classified in class 257, subclass 9.

III. Claim 31 and 32 are drawn to a system to process, classified in class 148, subclass 95.

Claims 25 through 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 3 (04/29/03).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 through 10 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Mulkens et al (U.S. Pat. No.6452662 B2).

Mulkens et al (U.S. Pat. No.6452662 B2), for **Claim #1,** a system to deliver radiation to a substrate, comprising: a radiation source to generate radiation having a source intensity distribution pattern **(Fig. 1, Column 1, lines 57 through 61)**; and a redistribution radiation guide adapted to receive the radiation from the radiation source and to direct the radiation from one region to different regions on the substrate so that the substrate intensity distribution pattern is different from the source pattern **(Fig. 4, 5 1& b, Column 7, lines 39 through 57)**.

With respect to **Claim #2**, the system of claim 1, wherein the redistribution radiation guide directs the radiation from one region to different regions by spreading out the source section, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, 5 1& b, Column 7, lines 39 through 57).

With respect to **Claim #3**, the system of claim 1, wherein the radiation guide comprises a plurality of spreading components for spreading a region of the radiation source to a larger region on the substrate, is taught by Mulkens et al (U.S. Pat.

No.6452662 B2) (Fig. 4, 5 1& b, Column 7, lines 39 through 57, Fig. 20 & 21, column 7, lines 44 through 65).

Furthermore, **Claim #4**, the system of claim 3, wherein the spreading component of the radiation guide distributes a local concentration section of the radiation source over a large region on the substrate for a more uniform distribution of radiation source on the substrate, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, 5 1& b, 20 & 21, column 7, line 44 through 65).

With respect to **Claim #5,** the system of claim 1, wherein the redistribution radiation guide directs the radiation from one region to different regions by shifting the source section when the radiation guide is moving, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (column 9, line 66 through 67, column 10, line 1 through 10).

Considering now **Claim #6**, the system of claim 1, wherein the radiation guide comprises a plurality of shifting components for shifting a region of the radiation source to a different region on the substrate, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, 5 1& b, Column 7, lines 39 through 57, Fig. 20 & 21, column 7, lines 44 through 65).

Furthermore, **Claim #7**, the system of claim 6, wherein the shifting component of the radiation guide spreads a local concentration section of the radiation source over a

large region on the substrate for a more uniform distribution of radiation source on the substrate when the radiation guide is moving, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, 5 1& b, Column 4, lines 39 through 57, Fig. 20 & 21, column 7, lines 44 through 65, column 9, line 66 through 67, column 10, line 1 through 10).

With respect to **Claim # 8,** the system of claim 6, wherein the shifting components of the radiation guide shift a ring section of the radiation source to a ring section on the substrate, and shift a portion of the ring section of the radiation source progressively to a portion of a ring section on the substrate so that a ring portion of the source is directed to many different ring portions of the substrate when the radiation guide is moving, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, 5a & b, column 4, line 39 through 57, Fig. 20 & 21, column 7, lines 44 through 65, column 8, lines 37 through 47).

Considering now **Claim #9**, the system of claim 8, wherein the ring section on the substrate is wider than the ring section of the radiation source to spread the radiation source over a large region, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, 5a & b, column 4, line 39 through 57).

Furthermore, **Claim #10**, the system of claim 1, wherein the radiation source comprises one or more lamps, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (column 9, line 7 through 14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11, 12, 20 through 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulkens et al (U.S. Pat. No.6452662 B2) as applied to claims 1 through 10 above, and further in view of Taketomi et al (U.S. Pat. No.6528397 B1)

Mulkens et al (U.S. Pat. No.6452662 B2)discloses the claimed invention except for thermal radiation for heating the substrate. Taketomi et al (U.S. Pat. No.6528397 B1) teaches that it is known to the radiation is thermal radiation for heating the substrate.

With respect to **Claim #11,** the system of claim 1, wherein the radiation is thermal radiation for heating the substrate, is taught by Taketomi et al (U.S. Pat. No.6528397 B1) (Fig. 22b, item 413, column 33, line 47 through 58, column 37, line 41 through 45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to the radiation is thermal radiation for heating the substrate as taught by Taketomi et al (U.S. Pat. No.6528397 B1), since Taketomi et al (U.S. Pat. No.6528397 B1) states at column 33, line 47 through 58, column 37, line 41 through 45 that such a modification would allow film to be heated by irradiating the entire surface of the a-Si film with one shot of an excimer laser.

Considering now **Claim #12**, the system of claim 1, wherein the radiation is visible light radiation for lighting the substrate, is taught by Taketomi et al (U.S. Pat. No.6528397 B1) (column 20, line 23 through 27, line 13 through 18, Claims 16 and 20).

With respect to **Claim #20,** the system of claim 1, wherein the radiation source is positioned substantially parallel to the substrate and the radiation guide is positioned in a direct path between the radiation source and the substrate, is taught by Taketomi et al (U.S. Pat. No.6528397 B1) (Fig. 65 column 65, line 45 through 59).

Considering now **Claim #21**, the system of claim 2 1, wherein the radiation guide comprises a light pipe, is taught by Mulkens et al (U.S. Pat. No.6452662 B2) (Fig. 4, column 3, line 65 through 67, column 4, line 1 through 6, column 5, line 10 through 26).

Furthermore, **Claim #22**, The system of claim 1, wherein the radiation source is positioned a at first angle to the substrate and the radiation guide is positioned at a

second angle to the substrate to direct radiation from the radiation source to the substrate, is taught by Taketomi et al (U.S. Pat. No.6528397 B1) (Fig. 9, item 151, 152, & 155, column 8, line 3 through 15).

Considering now **Claim #23**, the system of claim 22, wherein the radiation source is positioned at a 90 degree angle to the substrate and the radiation guide is positioned at a 45 degree angle to the substrate, is taught by Taketomi et al (U.S. Pat. No.6528397 B1) (Fig. 9 & 65, column 65, line 45 through 59).

Furthermore, **Claim #24**, the system of claim 22, wherein the radiation guide comprises a surface to reflect radiation from the radiation source to the substrate, is taught by Taketomi et al (U.S. Pat. No.6528397 B1) (Fig. 9 & 65, column 65, line 45 through 59).

Objected Claims

Claim 21 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim #21 is dependent on itself and therefore must be amended in order to be in proper format.

21. The system of claim 21, wherein the radiation guide comprises a light pipe.

Objected Claims

Claim13 through 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 & 14

- ✓ A substrate temperature sensor coupled to the substrate.

Claim 15 through 19

- ✓ Motor coupled to the radiation guide to move the radiation guide.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' Stevenson whose telephone number is (703) 308 6227. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on (703) 308 3325. The fax phone number for the organization where this application or proceeding is assigned is (703) 308 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956. Also, the proceeding numbers can be used to fax information through the Right Fax system;

- TC2800 Official Before-Final RightFAX - **(703) 746-8802**
- TC2800 Official After-Final RightFAX - (703) 872-9319
- TC2800 Customer Service RightFAX - (703) 872-9317

Andre' Stevenson

Art Unit 2812

05/13/03